JOURNAL OF
Neurobiology

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Cover: The *Drosophila shibire* gene (*shi*) encodes dynamin, which is required for fission of endocytic vesicles from plasma membrane. When the temperature-sensitive *shi* allele (shi^{ts1}) is specifically expressed in the developing eye by means of the *GAL4/UAS* system, the adult eye shows severe temperature-dependent morphological defects as seen in the top-left panel. Considering the involvement of *shi* in a number of critical developmental processes, the ability to inactivate *shi* function in a restricted group of cells at specific time points should help gain a new insight into the mechanisms of development. Since *shi* function is also essential for synaptic vesicle recycling in neurons, targeted expression of shi^{ts1} by the *GAL4/UAS* system allows perturbing synaptic transmission in a spatially and temporally restricted manner, which is potentially useful for the study of the nervous system and behavior. For more details, see the article by Kitamoto in this issue, pages 81–92.

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Cover: A membrane stripe assay illustrating that motor neurons from slices of embryonic E-15 rat caudal spinal cords grow selectively on control membranes from fibroblast QT6 cells (dark lanes), and they rarely grow on or cross over ephrin-A5 containing lanes marked by rhodamine fluorescent beads. Neurites are stained with anti-neurofilament antibody and fluorescein-labeled secondary antibody. Magnification 100×. See Wang et al., pp. 233–243.

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